CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 95-132
SITE CLEANUP REQUIREMENTS FOR:

ALLIEDSIGNAL, INCORPORATED
1634 SOUTH LARAMIE AVENUE
CICERO, ILLINOIS 60650

for the BARON BLAKESLEE FACILITY located at
8333 ENTERPRISE DRIVE
NEWARK
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Board), finds that:

1. **Site Location**: AlliedSignal Inc. (hereinafter the Discharger) operates the Baron-Blakeslee facility (hereinafter the Facility) within an industrial park at 8333 Enterprise Drive (hereinafter the Site) in the City of Newark, Alameda. The Site, covering an area of about 2.4 acres, is bounded by a Southern Pacific Railroad right-of-way and residential subdivision to the north, an industrial complex to the south, some warehouses/ offices to the east, and an undeveloped vacant property to the west. The closest surface water drainage to the site includes the Newark Slough approximately 2,000 feet to the northwest and Plummer Creek approximately 3,500 feet to the southwest.

2. **Site History**: Prior to 1972, the Site was undeveloped. The Facility was established in late 1972 by Purex Industries, Inc. primarily to store and distribute virgin chemical products. Recovery of chlorinated and fluorinated solvents from waste liquids was also conducted on Site. In April 1993, the Facility ceased its solvent recovery operation at the Site and proceeded to close its hazardous waste management units (HWMU's) in accordance with its operating permit requirements. The HWMU's were cleaned and closed according to the Department of Toxic Substances Control's (DTSC) requirements. Presently, the Site is reportedly used for blending and distributing chemicals only.

3. **Named Dischargers**: AlliedSignal Inc. acquired the Facility from Purex Industries, Inc. in 1985. As a current business operator and Site owner, AlliedSignal Inc. is named as the Discharger for the soil and groundwater pollution cited in finding 5. Previous daily facility activities included, but were not limited to, the operation of four hazardous waste management units, the loading and unloading of a variety of raw waste liquids and recovered chlorinated and fluorinated chemical products, the storage and distribution of

these chemicals on site. Unauthorized releases of some of these chemicals impacting groundwater below the Site had reportedly occurred during the past recycling operation.

If additional information is submitted indicating that other parties (e.g. Purex Industries, Inc.) caused or permitted any waste to be discharged on the Site where it entered or could have entered waters of the State, the Board will consider adding that party's name to this Order.

4. **Site Hydrogeology**: The Site is located on the Niles Cone within the Fremont groundwater area. The Newark Aquitard is the uppermost clay unit covering nearly all of the Niles subarea, and is underlain by three identified aquifers, namely, the Newark aquifer, Centerville aquifer and Fremont aquifer. Each of these aquifers is separated by an extensive clay aquitard. The Newark aquifer is the uppermost aquifer within the Niles subarea and ranges between 60 and 140 feet below ground surface (bgs). The thickness of this aquifer ranges from greater than 140 feet at the Hayward fault to less than 20 feet at the western edge near the San Francisco Bay. Lithologically, the Site is characterized by a thin layer of fill materials underlain by three alluvial deposits units. This units are collectively termed as the Shallow Zone for the purpose of this Order. Topographically, the Site is relatively level with an elevation of approximately 11 feet above Mean Sea Level (MSL). Groundwater levels in the shallow zone below the Site generally range between 9 and 15 feet bgs, and the groundwater flow varies between westerly and southwesterly.

5. **Remedial Investigation**: During the period between 1993 and 1994, preliminary on-site investigations were conducted by the Discharger to comply with RCRA Part B permit closure requirements. The first investigation was focused on surficial and subsurface soil sampling. The second investigation including a soil gas survey was performed in early 1994 to further delineate the areal extent of impacted vadose zone soils around the two areas identified in the first investigation. A subsequent groundwater quality assessment in September 1994 confirmed significant groundwater pollution below the Site. Throughout these investigations, two separated areas were identified on Site having significant soil and groundwater pollution from past releases of organic chemicals. These areas are, namely, the Process Building and the Spur Track Area. Chemical constituents detected in soils and groundwater included 1,1-Dichloroethane (1,1-DCA), 1,1-Dichloroethene (1,1-DCE), cis-1,2-Dichloroethene (cis-1,2-DCE), Tetrachloroethene (PCE), 1,1,1-Trichloroethane (1,1,1-TCA), Trichloroethene (TCE), total Xylenes, Acetone, Ethylbenzene, Toluene, Methylene Chloride, Freon-113. The highest dissolved concentrations of TCE and PCE detected so far were found in groundwater samples collected from two of the monitoring wells in the Spur Track Area. These levels of TCE (60,000 and 61,000 ppb) and PCE (20,000 and 33,000 ppb) appear to be consistent with the results of a "reported" significant spill/ release of which the local hazardous material agency had been notified before. Moderate to high concentrations of the same chemicals were also detected in groundwater below the Process Building. Since nine, out of the ten monitoring wells shown, produce water with almost all the detectable volatile organic

chemicals, referenced above, with concentrations substantially above the corresponding drinking water standards, the Board believes that groundwater below the Site has been significantly impacted by these releases. Due to the limitations of the analytical data, the lateral and vertical extent of these two groundwater plumes are not delineated. .

Although the soil pollution extent has been essentially delineated in the Building Process and Spur Track Areas, there are some other potential source areas that need to be investigated for the completion of soil characterization. These areas include, but are not limited to, the Mixing Room, the Container Storage Area, the Empty Drum Area, and the Container Staging Area. Also off-site soil pollution resulting from the Facility's previous unauthorized chemical release should be characterized.

6. **Interim Remedial Measures**: Neither soil nor groundwater has been remediated. Interim remedial measures need to be implemented at this site to reduce the threat to water quality, public health, and the environment posed by the discharge of waste and to provide a technical basis for selecting and designing final remedial measures.

7. **Adjacent Sites**: Four neighboring sites, namely, FMC, Romic Environmental Technologies (formerly known as Romic Chemicals), Ashland Chemicals, and Jones-Hamilton Co., are currently conducting groundwater cleanup under Board's Orders. These sites are located in the immediate downgradient or cross-gradient direction of the Facility. Each of these sites has been continuously operating its own groundwater extraction and treatment system for the last few years.

8. **Regulatory Status**: The Site is currently not subject to Board order.

9. **Basin Plan**: The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, and the State Board approved it on May 21, 1987. The Board has amended the Basin Plan several times since then. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

   The potential beneficial uses of groundwater underlying and adjacent to the site include:

   a. Municipal and domestic water supply
   b. Industrial process water supply
   c. Industrial service water supply
   d. Agricultural water supply

   The potential beneficial uses of the Newark Slough and Plummer Creek and contiguous surface waters include:

   a. Contact and non-contact water recreation
   b. Wildlife habitat

c. Warm and cold fresh water habitat
d. Fish migration and spawning

10. **Other Board Policies**: Board Resolution No. 88-160 strongly encourages dischargers of extracted, treated groundwater from site cleanups to reuse it or discharge it to the sanitary sewer.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

11. **State Water Board Policies**: State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California", applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Non-background cleanup levels must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not exceed applicable water quality objectives.

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304", applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

12. **Basis for 13304 Order**: The Discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

13. **Cost Recovery**: Pursuant to California Water Code Section 13304, the Discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.

14. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

15. **Notification**: The Board has notified the Discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

16. **Public Hearing**: The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. **PROHIBITIONS**

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. **TASKS**

1. The Discharger shall perform all investigation and cleanup work in accordance with the requirements of this Order. All technical reports submitted in compliance with this Order shall be satisfactory to the Executive Officer, and, if necessary, the Discharger may be required to submit additional information.

2. To comply with all of the Prohibitions, Provisions and Tasks of this Order and the Self-Monitoring Program, the Discharger shall meet the following compliance tasks and time schedule:

a. **WORKPLAN TO IDENTIFY SOURCES**

COMPLIANCE DATE: August 1, 1995

Submit a workplan acceptable to the Executive Officer to identify all pollution sources including chemical storage areas, loading and unloading areas, container staging and emptying areas, the mixing room, any sumps, underground tanks, utility lines, and related facilities. The workplan should specify investigation methods and a proposed time schedule.

b. **COMPLETION OF SOURCE IDENTIFICATION**

COMPLIANCE DATE: September 30, 1995

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 2a workplan. The technical report should identify confirmed and possible sources of pollution.

c. **REMEDIAL INVESTIGATION WORKPLAN**

COMPLIANCE DATE: October 31, 1995

Submit a workplan acceptable to the Executive Officer to define the vertical and lateral extent of soil and groundwater pollution. The workplan should specify investigation methods and a proposed time schedule. Work may be phased to allow the investigation to proceed efficiently. Separate workplans and technical reports shall be submitted to the Board for such phased investigations.

d. **COMPLETION OF REMEDIAL INVESTIGATION**

COMPLIANCE DATE: January 31, 1996

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 2c workplan. The technical report should define the vertical and lateral extent of pollution down to concentrations at or below cleanup standards that are acceptable to the Board/ Executive Officer for soil and groundwater.

e. **INTERIM REMEDIAL ACTION WORKPLAN**

COMPLIANCE DATE: March 31, 1996

Submit a workplan acceptable to the Executive Officer to evaluate interim remedial action alternatives and to recommend one or more alternatives for implementation. The workplan should specify a proposed time schedule. Work may be phased to allow the investigation to proceed efficiently. If groundwater extraction is selected as an interim remedial action, then one task will be the completion of a permit application and obtaining authorization for discharge of extracted and treated groundwater to the publicly owned treatment works in the area, if reclamation is not feasible.

f. **COMPLETION OF INTERIM REMEDIAL ACTIONS**

COMPLIANCE DATE: June 30, 1996

Submit a technical report acceptable to the Executive Officer documenting

completion of necessary tasks identified in the Task 2e workplan. For ongoing actions, such as soil vapor extraction or groundwater extraction, the report should document start-up as opposed to completion. Should the approved interim remedial method consist of separate cleanup efforts, such as on-site soil, on-site groundwater, and off-site groundwater remediation, each part should have a workplan followed by a technical report. The final report for the last part of the approved interim remedial method identified shall meet this completion date.

g. **PROPOSED FINAL REMEDIAL ACTIONS AND CLEANUP STANDARDS**

COMPLIANCE DATE: October 31, 1996

Submit a technical report acceptable to the Executive Officer containing:

a. Results of the remedial investigation
b. A 90-day evaluation of the interim remedial actions
c. Feasibility study evaluating alternative final remedial actions
d. Risk assessment for current and post-cleanup exposures
e. Recommended final remedial actions and cleanup standards
f. Implementation tasks and time schedule

Items b and c should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code Section 25356.1(c), and State Board Resolution No. 92-49, as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

3. **Delayed Compliance**: If the Discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the Discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

C. PROVISIONS

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).

2. **Good O&M**: The Discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

3. **Cost Recovery**: The Discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the Discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with California Water Code Section 13267(c), the Discharger shall permit the Board or its authorized representative:

   a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

   b. Access to copy any records required to be kept under the requirements of this Order.

   c. Inspection of any monitoring or remediation facilities installed in response to this Order.

   d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Discharger.

5. **Self-Monitoring Program**: The Discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

6. **Contractor/ Consultant Qualifications**: All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications**: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision

does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).

8. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

   a. City of Newark, Fire Department
   b. Department of Toxic Substance Control, CAL/EPA
   c. Alameda County Water District

9. **Reporting of Changed Owner or Operator**: The Discharger shall file a report on any changes in site occupancy or ownership associated with the property described in this Order.

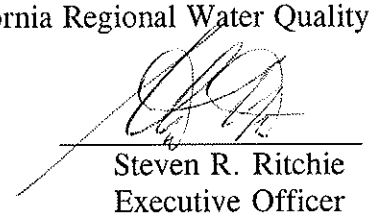
10. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the Discharger shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

    A written report shall be filed with the Board within five (5) working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/ agencies notified.

    This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Periodic SCO Review**: The Board will review this Order periodically and may revise it when necessary. The Discharger may request revisions and upon review, the Executive Officer may recommend that the Board revise these requirements.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 21, 1995.



Steven R. Ritchie
Executive Officer

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FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13267 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

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Attachments: Site Map
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

ALLIEDSIGNAL, INCORPORATED
1634 SOUTH LARAMIE AVENUE
CICERO, ILLINOIS 60650

for the BARON BLAKESLEE Facility at
8333 ENTERPRISE DRIVE
NEWARK
ALAMEDA COUNTY

1. **Authority and Purpose**: The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 95-132.

2. **Monitoring**: The Discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
MW-1	Q	8010	MW-6	Q	8010 & 8020
MW-2	Q	8010	MW-7	Q	8010
MW-3	Q	8010	MW-8	Q	8010
MW-4	Q	8010	MW-9	Q	8010
MW-5	Q	8010	MW-10	Q	8010 & 8020

Key: Q = Quarterly
8010 = EPA Method 8010 or equivalent
8020 = EPA Method 8020 or equivalent

The Discharger shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. After a minimum of two years of quarterly monitoring, the Discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports**: The Discharger shall submit quarterly monitoring reports to the Board no later than 30 days following the end of the quarter (e.g. first quarter report due April 30). The first quarterly report for this Self-Monitoring Program shall be due on July 31, 1995. The reports shall include:

   a. Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the Discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official that the report, under penalty of perjury, is true and correct to the best of the official's knowledge.

   b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Well data including, but not being limited to the well depths, screen intervals, well elevations, shall also be presented in tabular form. Historical groundwater elevations shall be included in the fourth quarterly report each year.

   c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used and detection limits obtained for each reported constituent. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as laboratory data sheets, need not be included (however, see record keeping - below). QA/QC summary data shall be included in the report.

   d. Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report each year.

   e. Status Report: The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

4. **Violation Reports**: If the Discharger violates requirements in the Site Cleanup

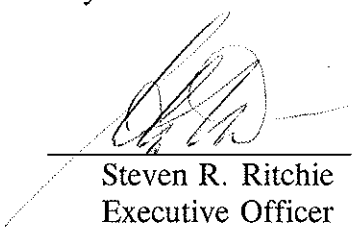
Requirements, then the Discharger shall notify the Board office by telephone as soon as practicable once the Discharger has knowledge of the violation. Board staff may, depending on violation severity, require the Discharger to submit a separate technical report on the violation within five (5) working days of telephone notification.

5. **Other Reports**: The Discharger shall notify the Board prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.

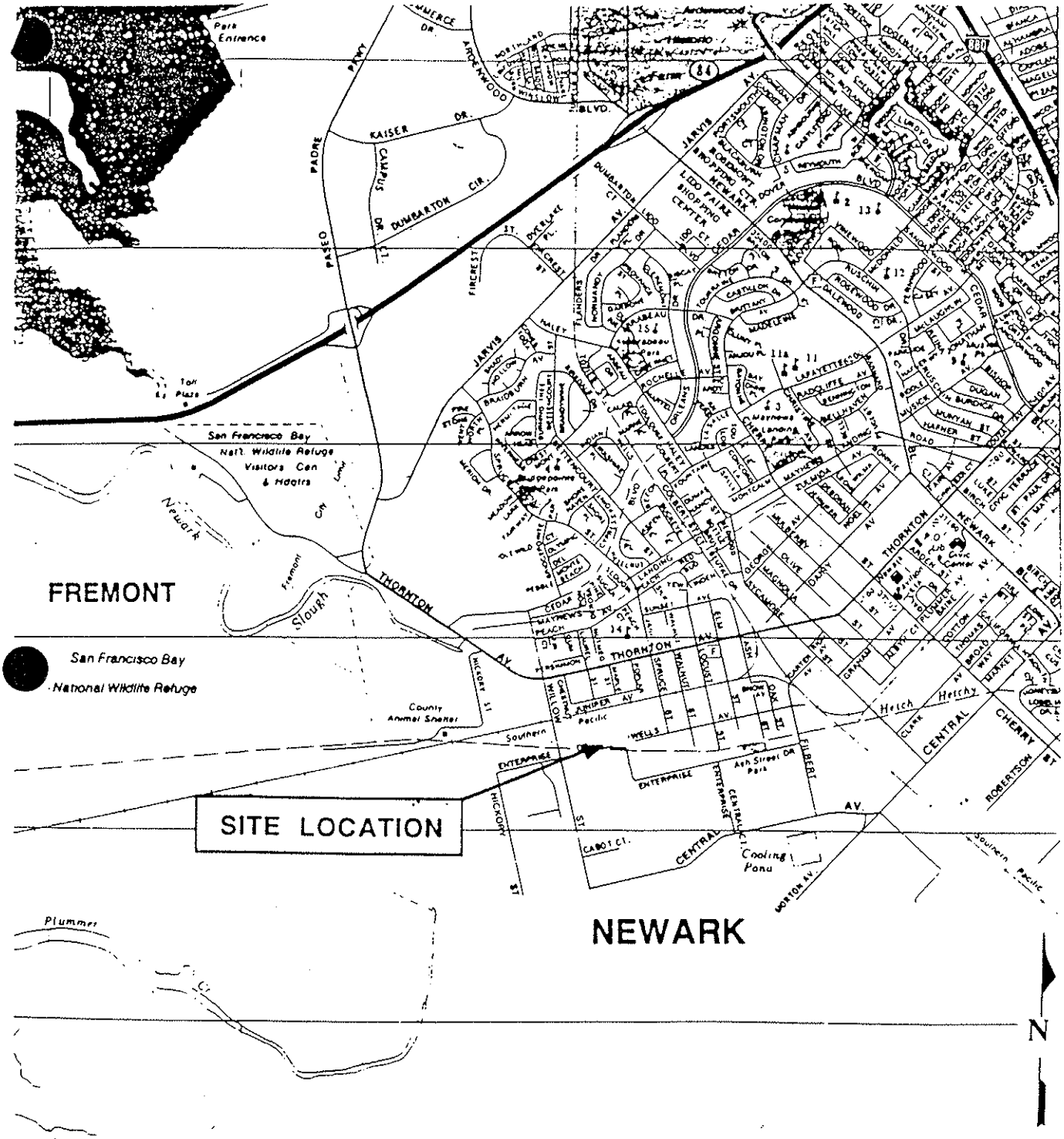
6. **Record Keeping**: The Discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination.

7. **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the Discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Steven R. Ritchie, Executive officer, hereby certify that this Self-Monitoring Program was adopted by the Board on June 21, 1995.



Steven R. Ritchie
Executive Officer



REFERENCE: STREETFINDER, ALAMEDA COUNTY, RAND McNALLY, 1989

San Francisco Bay

FIGURE 1

SITE LOCATION MAP

ALLIEDSIGNAL, INC. NEWARK, CALIFORNIA		DATE: 3-11-94